

RIVO MULTITRADE OPTICAL SYSTEMS

Horizontal cable trays are trough type



Overview

Cablofil steel trough trays provide the strength and security required when then need to limit cable access is of primary importance.

Key Takeaways

Trough-type horizontal cable trays provide continuous cable support with solid or partially ventilated bottoms, ideal for organized, secure routing of power, control, and communication cables.

A trough cable tray is a type of horizontal cable tray featuring a continuous or partially ventilated bottom with solid side rails, but without the transverse rungs found in ladder trays . This design emphasizes continuous support for cables while maintaining moderate structural strength, making it suitable for small-diameter cables such as control, instrumentation, and communication lines . Trough trays occupy a middle ground between ladder trays, which offer maximum ventilation, and solid-bottom trays, which provide full protection .

Design and Construction

- **Bottom Surface:** Can be solid or perforated for limited ventilation, providing continuous support to reduce mechanical stress on cable jackets .
- **Side Rails:** Solid rails along the edges maintain structural integrity and prevent cables from spilling out.
- **Materials:** Commonly made from steel, aluminum, or fiberglass, depending on environmental conditions and load requirements .

- Covers: Optional covers, including hinged or solid types, can protect cables from dust, moisture, or mechanical damage, especially in industrial or outdoor applications .

Applications

Trough trays are widely used in scenarios where organized cable routing and limited access are important, such as:

- Industrial plants and commercial buildings for power distribution and control systems .
- Areas with mixed cable types, including instrumentation and communication cables, where continuous support is necessary .
- Environments requiring moderate protection from dust, moisture, or incidental contact, often with optional covers for enhanced safety .

Advantages

- Continuous Cable Support: Reduces stress on cable jackets and prevents sagging.
- Moderate Structural Strength: Can support a variety of cable weights without excessive material use.
- Flexibility in Ventilation: Perforated bottoms allow some airflow to dissipate heat while maintaining support.
- Ease of Installation and Maintenance: Open design allows easier cable placement and future modifications compared to fully enclosed trays .

Considerations

- Heat Dissipation: While perforated bottoms provide some ventilation, trough trays are less ventilated than ladder trays, so heat buildup should be considered for high-current cables .
- Environmental Suitability: Material selection should match exposure conditions; for example, fiberglass troughs are suitable for corrosive or wet environments, while steel or aluminum may be preferred indoors .
- Load Capacity: Ensure the tray is rated for the total cable weight and span length to prevent deflection or structural failure . Trough-type horizontal cable trays offer a balanced solution for cable management, combining continuous support, moderate protection, and adaptability for various industrial and commercial applications. They are particularly effective when organized routing, cable protection, and limited access are priorities.

Article Content

7 Types of Cable Trays: How to Choose the Right One

From a design standpoint, trough trays emphasize continuous cable support while maintaining moderate structural

Trough Trays | Cable Tray and Reels | Wire and Cable Management

Cablofil steel trough trays provide the strength and security required when then need to limit cable access is of primary importance.

Cable Tray Type Selection

What type of cable tray should be used for the main runs of a cable tray wiring system? The cable tray types to choose from are

Horizontal & Vertical Cable Managers

Troughs, Spools, and Trays: These kits come equipped with dedicated troughs, spools, and trays. These components ensure proper

Trough Type Cable Tray Guide: Load, Installation & Benefits

A professional guide to trough type cable trays. Explore load capacity charts, installation guidelines, advantages over

Cable Tray Technical Guide A practical guide to product selection

Cable tray is considered to be a system. It must provide continuous support for cables, and the electrical continuity of the cable tray

Types of Cable Trays: Ladder, Perforated, Basket, Solid & Channel

Explore all types of cable trays—ladder, perforated, basket, solid, and channel. Learn their uses, materials, pros,

Cable Tray Installation Rules (NEC 392) - Electrical Trader

Only cables specifically rated for tray use - such as Type TC (Tray Rated) or Type MC (Metal-Clad) - are allowed.

Cable Tray Fill Rules (NEC 392)

Cable tray is the preferred wiring method for industrial facilities, data centers, and large commercial buildings where

Types of cable Tray Cable Trays

Type of Cable Trays: Cable trays are made of either steel, aluminium or fiber reinforced plastic (FRP) and are available in six basic

Top 7 Types of Cable Trays and Their Applications

A: The main types are ladder type, perforated, solid bottom, wire mesh, channel, trough, and single rail cable trays,

Cable Tray Institute

Fabricated in numerous styles (wiremesh, ladder, ventilated trough, channel, and solid-bottom) and sizes, cable tray provides the

Microsoft Word

The rungs of the ladder cable trays provide convenient anchors for tying down the cables in the non-horizontal cable tray runs or

Cable tray vs cable basket vs cable ladder vs cable trunking ...

This article will discuss the four most common types of cable containment and their uses: cable tray, cable basket,

A Guide to Installing and Supporting Electrical Cable Trays

These detailed cable fill calculations prevent overheating. What are the main differences in a ladder tray versus ventilated trough

Cable Tray Systems: NEC Article 392 Installation Guide

Master cable tray installation with NEC Article 392 requirements for types, fill calculations, support, and grounding.

Types of Cable Trays – Advantages, Applications and Sizes

Explore the types of cable trays, their advantages, applications, and standard sizes. Learn how they improve cable

B-Line series Cable Tray Design Considerations

As an industry leader in cable tray, Eaton offers one of the widest ranges of cable management solutions available in the market

Related Video Reference

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